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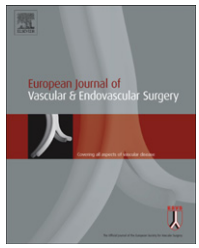

INVITED COMMENTARY

''Is Robotic Surgery Right for Vascular Procedures? Report of 100 Aortoiliac Cases'' by Petr Štádler, et al.

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The authors are to be commended with their meticulous description of the largest series in the world of patients treated with robot assisted laparoscopic aortoiliac reconstruction.

Laparoscopic aortic surgery, in spite of the devotion of many pioneers,[1,2] has never really become mainstream simply because *it 's too difficult*. Sewing the aortic anastomosis laparoscopically is very much like playing a guitar behind once back or riding a bike with reversed steering: very much possible, *with sufficient practice*, but hardly optimal.

The first use of the operative robot in aortic surgery has been described in 2002.[3] In spite of clear, intuitive advantages whereby the robotic technology has eliminated many of the classic laparoscopic obstacles such as unnatural eye-hand coordination, unnatural working-axis, 2-dimensional vision, limited degrees of freedom and the 'fulcrum effect', to date, not many vascular surgeons have been convinced. Mere availability of robotic systems does not seem to be the issue: pushed by ''evidence backed'' advantages in other fields, such as urology and gynaecology, many modern hospitals have adopted robotic systems the world over.

As I have witnessed in Prague, Dr. Štádler and colleagues have built a strong aortic robotic program based on individual skill and excellent team work. Certainly the latter is an absolute and unconditional requirement for an efficient and safe robotic aortic program. The modified transperitoneal approach for aortic exposure as described in this article, with only minor changes in patient position during the operation and lack of mobilization of the descending colon, is unique and a valuable addition. The nearly supine position of the patient allows for the robotic system to be placed on the right side of the patient, thereby optimizing camera and instrument angles. Also, interference with the shoulder and head of the patient seems to be diminished in comparison with techniques described earlier.[3] Although mean total operating time has been diminished further by these elegant additions, the reported maximum of around 6 hours may still turn out to be prohibitive in *certain* patients (and we don't always know who they are).

It is remarkable that the authors have been able to accumulate such a large number of patients in such a short time. Besides a good reputation and a large catchment area (virtually all of Czechia), certainly a confounding factor in their success has been the relative underexposure of endovascular techniques within their institution. A good number of patients described in this article would have preferably undergone percutaneous endovascular treatment in other hospitals, including ours. Maybe this constitutes a possible point of criticism towards the authors: I believe, as full-time vascular surgeons, we should not restrict ourselves to just one technique, but treat vascular disease in each individual patient with the procedure of choice: either beit non-operatively, endovascular, laparoscopic or open.

Undoubtedly, however, it takes skilled, focused, devoted and maybe therefore somewhat monomaniac pioneers like Dr. Štádler and colleagues to truly bring us forward in our perpetual quest: to treat vascular patients in

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a superior manner while, at the same time, causing the least possible amount of collateral damage.

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